

Kentucky Environmental Quality Commission Public Meeting

Oil and Gas Drilling in Kentucky

Meeting Minutes

November 19, 2003

Room 316 Capitol Building

Frankfort, Kentucky

EQC Commissioners Present

Aloma Dew, Chair

Jean Dorton

Lindell Ormsbee

Gordon Garner

Commissioners not attending

Patty Wallace

Betsy Bennett

Gary Revlett

Speakers/Representatives Present

Brandon Nuttall, Kentucky Geological Survey

Brian Gilipan, Assistant Director, Div. of Oil and Gas

Jim Villines, Dept. for Surface Mining

Allen Luttrell, Dept. for Surface Mining

Tony Hatton, Division of Waste Management

Jeff Pratt, Division of Water

Sandy Gruzeski, Division of Water

Lona Brewer, Division for Air Quality

EQC Staff Present

Leslie Cole, Executive Director

Erik Siegel, Assistant Director

Frances Kirchhoff, Executive Secretary

Opening Remarks

Aloma Dew, Chair of the Environmental Quality Commission opened the meeting at 1 p.m. She welcomed the speakers and attendees and reviewed the meeting agenda.

Oil and Gas Drilling in Kentucky: Trends and Issues

Ms. Dew said that EQC chose to focus its November meeting on oil and gas drilling in Kentucky in response to predictions that residential natural gas bills will rise to near record levels this winter. The commission invited state officials to review the oil and gas drilling trends in the state to assess if current regulatory rules are sufficient to protect the environment given the possibility of increased oil and gas production in Kentucky.

Ms. Dew noted that there are currently more than 18,000 producing oil wells and 12,000 producing natural gas wells in the state. In 2001, oil and gas production in Kentucky totaled 98 trillion Btu with a value of \$457 million. That year, the industry paid \$21 million in severance taxes. During the past 4 years the number of natural gas permits has more than doubled -- from 218 in 1999 to 578 in 2002. Small operators dominate Kentucky's oil and gas industry. Last year 16 inspectors of the Division of Oil and Gas conducted some 3,000 inspections of these wells. That amounts to about 7 inspections a day. They cited 875 violations last year.

Brandon Nuttall, Kentucky Geological Survey

Ms. Dew introduced the first speaker, Brandon Nuttall with the Kentucky Geological Survey. Mr. Nuttall gave a powerpoint presentation about the history and current trends of oil and gas drilling, as well as recommendations.

- **Production and Trends**

Nuttall noted that the gas-producing counties are mostly in eastern Kentucky. The most active ones are in Pike County. There are some in south central Kentucky in Clinton County. There were 833 wells reported in 2002 with an average depth of 2,900 feet. Mr. Nuttall said that current trends show that oil wells in Kentucky are declining but permits for gas wells are increasing. Production is going to go up but there is a gap between what we are producing and what Kentucky is consuming. Most of that gap is going to be made up by imports of oil.

Nuttall told commissioners that the national Energy Information Administration believes that the demand for coal is going to increase to the year 2025, natural gas is going to increase and oil is doing to decrease. The increasing demand for energy will cause an increase in production costs and that increase will be passed on to the consumer. The decreasing production of oil is eminent. The U.S. must be able to produce more energy and do it all with environmental stewardship in mind. Production must also work with constraints of public opinion. Public opinion is usually, “Not In My Back Yard”(NIMBY) or “Build Absolutely Nothing Anywhere Near Anything” (BANANA)

- **Stripper Wells**

One big issue is stripper wells. Stripper wells produce nearly 90 percent of the oil and gas used in the U.S. These wells produce less than 10 barrels per day or less than 60 thousand cubic feet of gas per day. These are extremely important to the U.S. But these wells have to be able to compete on the worldwide market. It is important to keep these wells in production because it means jobs and economic development for an individual counties and areas in Kentucky. If we do not protect the stripper wells, they become abandoned.

- **Abandoned Wells**

There are thousands of abandoned wells that were drilled prior to any regulations. The Division of Oil and Gas has a fund for plugging these wells. This plugging fund is financed primarily through oil and gas well bond forfeitures per KRS 353. But bond fees do need to be increased to cover the actual cost of plugging wells. These funds should then be protected to be used only for environmental purposes to plug abandoned wells.

- **NORM**

Naturally Occurring Radioactive Materials (NORM) can accumulate in long-term enhanced recovery project operations in piping, tubing, and in tanks. NORM is a radioactive material that is detectable above background levels. Kentucky should adopt guidelines and design and open approved landfills for handling this type of material.

- **Coalbed methane**

Coalbed methane is a clean natural gas that occurs in Kentucky. Coalbed methane is a gas that is going to allow us to take advantage of some of the high sulfur, thin, deep coals that probably wouldn't otherwise be mined. This is the fastest growing energy resource in United States. We should adopt regulations for the production of coalbed methane in Kentucky. This would improve cooperation between coal and oil industry and the state will be served through severance taxes.

- **Infrastructure**

The biggest challenge to the natural gas industry is infrastructure—how do you get the gas from wellhead to the market. Infrastructure is going to involve gathering, compression, transmission lines and right of way issues and homeland security. One of the things we should do is adopt regulations to ensure these lines are built and sited properly.

- **Carbon Sequestration**

Carbon sequestration is a brand new environmental initiative. Carbon emissions have been increasing steadily. We have been putting a lot of carbon into the atmosphere. Research is ongoing to look at storing carbon in geological formations. These include oil and gas fields. When you inject the CO₂ in, there is a possibility of enhanced recovery. Research is being done in coals in certain states. There is a process called deep saline aquifers that is a brine formation 4 to 6 thousand feet deep. Other research is being done on other unconventional methods. What should we do? Again we need some guidelines and regulations. In this case, Kentucky needs underground injection control (UIC) primacy. We need to be able to control our own fate and not leave it in the hands of the federal government.

In conclusion, Mr. Nuttall believes that additional energy production provide opportunities for economic growth, resource development and environmental stewardship.

Mr. Brian Gilipan with the Kentucky Division of Oil and Gas

The next speaker was Mr. Brian Gilipan with the Kentucky Division of Oil and Gas. Mr. Gilipan briefed the Commission on the growing interest of coalbed methane extraction in Kentucky and some of the environmental issues associated with it. Mr. Gilipan reviewed the agency's regulatory authority for oil and gas exploration, production, development, gathering and transmission and to protect the property, health, and safety of the citizens of the Commonwealth in a manner consistent with KRS Chapter 353, and to the exclusion of all other nonstate governmental entities except as provided in KRS Chapter 100.

- **Gathering Lines**

Mr. Gilipan said the Division of Oil and Gas was mandated by the Legislature to promulgate regulations for oil and gas gathering lines within six months after June 24, 2003. The public hearing on the proposed new administrative regulation 805 KAR 1:190, Gathering lines will be on November 21, 2003.

Questions and Answers

Q. You talked about increasing bond fees. Are the fees adequate as it is?

A. The multiple well bond fee is \$5,000 and that might cover 200 wells. 200 wells at an average cost of \$2,000 for plugging is not covered with a \$5,000 bond. We do not want to put all the oil and gas companies out of business by requiring a million dollar bond on every well, but the state does need to look after its interests and increase that fee.

Q. Some of the enforcement statistics and frequency of inspections of the wells is a long time. What wells are you going to inspect. What will be your strategy?

A. You are right with 48,000 wells, 13 inspectors and 3 supervisors we cannot go to all of these wells. A lot of them are in good shape and the inspector does fine on an annual basis.

Q. Is there a typical kind of violation?

A. The most common in improperly abandoned.

Q. Will complaints and violations go up because of these regulations?

A. No, Not really. Most citations are from old wells.

Q. Do you work with the Division of Water?

A. Yes. Well pits is a Division of Water program. Well tanks is with Division of Water and Division of Waste Management. We also refer complaints/violations to them.

Q. How will the national energy bill affect Kentucky?

A. Drilling will be up especially because of the tax advantages and breaks on coal bed methane.

Q. Looks like water quality violations dropped from 1990 high. Is this better performance or better enforcement?

A. That is a Division of Water program. That trend has not changed and is the focus from the Division of Water. It reflects better performance. The Division of Water has not backed off on regulation oversight.

Q. What incentive is there for an operator to comply?

A. Jail and fines. Most often their bond money

Q. Do you have permit blocking for violators?

A. Yes.

Ms. Dew thanked the speakers for their presentations and the commission moved on to its review of proposed regulations.

Regulatory Review

Surface Mining

The next speaker was Mr. Jim Villines and Allen Luttrell with the Department of Surface Mining. Mr. Villines briefed the Commission on the proposed Surface Mining amendments to administrative regulations: 405 KAR 7:001, 8:001, 10:001, 12:001, 16:001, 18:001, 20:001 and 24:001. These regulations establish definitions for terms used in 405 KAR Chapters 7-24 pertaining to surface and underground coal mining operations.

The proposed amendments clarify and simplify the definition of “affected area” as it relates to roads. The current definition of “affected area” includes every road used for the purposes of access to, or for hauling coal to or from, surface coal mining and reclamation operations, unless the road (a) was designated as a public road pursuant to the laws of the jurisdiction in which it is located; (b) is maintained with public funds, and constructed in a manner similar to other public roads of the same classification within the jurisdiction; and (c) there is substantial (more than incidental) public use. Thus the current regulations establish a three-prong test based upon legal designation, maintenance funding, construction standards, and degree of public use, to determine those public roads that will not be considered part of the affected area (and therefore need not be permitted and bonded in connection with surface coal mining and reclamation operations). The proposed amendments delete the three-prong test and exclude a road from the affected area if the road is a state, county or public road and the road is in existence as of the date of the submittal of the preliminary application under 405 KAR 8:010 Section 4.

These amendments will eliminate confusion arising from the implementation of the existing state definition of “affected area” as it applies to public roads in view of the partial suspension of the corresponding federal rule. The federal definition of “affected area” was partially suspended November 20, 1986 “insofar as it excludes roads which are within the definition of surface coal mining operations.”

Applicants for surface and underground coal mining permits will no longer face the uncertainty of potentially being required to permit and bond a public road that fails to meet any one criterion of the three-pronged test in the definition of “affected area”, if the public road exists at the time of submission of the preliminary application under 405 KAR 8:010.

After much discussion, a motion was made by Jean Dorton and seconded by Lindell Ormsbee to recommend that The Environmental Quality Commission express concern regarding the Natural Resources and Environmental Protection Cabinet Department for Surface Mining Reclamation and Enforcement, Proposed Amendments to Administrative Regulations: 405 KAR 7:001, 8:001, 10:001, 12:001, 16:001, 18:001, 20:001, 24:001 pertaining to “affected areas” and made the following recommendations.

- 1) Because it is likely that these amendments will not be approved by the federal Office of Surface Mining and/or will be litigated in the courts, the Commonwealth of Kentucky and the Department of Surface Mining seek resolution of the issue regarding the definition of "affected area" as it pertains to public roads and affected residences.
- 2) That protecting families who live along public roads that are legitimately affected by coal mining operations needs to be more fully addressed in these amended regulations and the state should seek additional input from various interests (coal, environmental, local government, Office of Surface Mining, individuals) in order to develop language that provides an opportunity for those aggrieved parties to seek resolution of problems associated with the use of public roads for coal mine operations.

The motion passed with unanimous approval. Ms. Dew noted that she could not with a clear conscious vote to approve the proposed amendment. It is our charge to represent the people in the state who do not have a voice. I want to go on record as not supporting the amended regulation until further revelations have been made. I don't know if this change is right or wrong but have reservation at this time.

Waste – Environmental Performance Standards

The next speaker was Mr. Tony Hatton, Division of Waste Management. Mr. Hatton briefed the Commission on Environmental Performance Standards in 401 KAR 47:030. The proposed changes will create consistent allowable levels with the Public Water Supply levels found in 401 KAR chapter 8 along with the performance standards found in 401 KAR 30:031. This proposed amendment is to provide consistency within the administrative regulations. The Commission deferred action until its December meeting.

Air Quality – Open Burning

The next speaker was Lona Brewer, Division of Air Quality. Ms. Brewer briefed the Commission on the proposed amendment to 401 KAR 63:005, Open Burning, to clarify several issues concerning open burning in the state of Kentucky.

Ms. Brewer noted that during February 2003, ice storms generated an enormous amount of storm debris. The disposal methods for the debris varied from county to county. The use of air curtain burners for disposing storm debris is addressed in the amendments. In addition, fire training is limited to ensure that fire training is conducted properly and not solely used as a disposal method of buildings and structures, including mobile homes. The intent of the division by amending the open burning regulation is to protect the public, health, safety and environment. The Commission deferred action until the December meeting.

Water Quality – Water Quality Standards

The next speaker was Mr. Jeff Pratt, Director, Division of Water and Sandy Gruzeski, Assistant Director. Mr. Pratt briefed the Commission on proposed amendments to the state's water quality standards—401 KAR 5:002, 5:026, 5:029, 5:030, and 5:031. A summary follows:

401 KAR 5:002

This amendment revises 401 KAR 5:002 to include two (2) new definitions and deletes one (1) definition that is no longer necessary. The two (2) new definitions are for the term, "E. coli" or "Escherichia coli" and the category, "high quality water." The previously included category, "Use protected water", has been deleted in this amendment because the category name, "Impaired water", is now being used. The term, "impairment", already exists in the definitions regulation; therefore, there was no need to include a definition for "Impaired" in this amendment. This administrative regulation is being amended to accompany the amended water quality standards, 401 KAR 5:026, 5:029, 5:030, and 5:031, filed on the same date.

401 KAR 5:026

This amendment revises designated use information for three (3) previously listed surface waters, replaces one (1) previously listed surface water, and adds twelve (12) previously unlisted surface waters. Two (2) of the three (3) revisions were to correct errors in the previous triennial review in which cold water aquatic habitat use was mistakenly changed to warm water aquatic habitat use in the Nolin and Rough rivers below their respective reservoirs. This amendment is necessary to update surface water information and assign use designations for previously unlisted surface waters. This administrative regulation is being amended as part of the triennial review.

401 KAR 5:029

This amendment restricts location of a mixing zone that would jeopardize endangered or threatened aquatic species listed in the Federal Endangered Species Act. This amendment also prohibits mixing zones for new discharges of Bioaccumulative Chemicals of Concern (BCCs) and phases out mixing zones for existing discharges of these substances. This amendment is necessary to establish revised measures to protect human health and aquatic life.

401 KAR 5:030

This amendment revises surface water categories to include the new category of high quality water as a default category and the newly named impaired water. It also sets forth antidegradation review requirements for several types of discharges. The amendment reorganizes much of the Section 1 text and includes 166 surface waters newly classified as exceptional water that are reorganized into a new table. The new table includes waterway segments for each listed water. Two (2) new documents are incorporated by reference and two (2) documents previously incorporated by reference have been removed from this administrative regulation. This amendment is necessary to address outstanding U.S. EPA disapproval. The U.S. EPA has disapproved this regulation after promulgation twice on August 7, 1997 and August 20, 2000. At Volume 67 Federal Register No 220 p 68971 on November 14, U.S. EPA proposed a substitute rule that is substantially the same as 401 KAR 5:029(1). The proposal, if enacted, will leave Kentucky without implementation procedures for its antidegradation program.

- Added 166 exceptional waters, most are Reference Reach streams.
- Classifies surface waters as high quality waters (Tier 2) by default.
- Impaired water (Tier 3) designated uses required to be protected through the requirements of the Kentucky Pollution Discharge Elimination program.

- New or expanded dischargers to exceptional waters (Tier 1) must meet stricter discharge limits and would be subject to additional antidegradation review including alternatives analysis and socioeconomic demonstration if they do not choose to accept the more stringent limits. Some dischargers to high quality waters (Tier 2) are restricted to half the water quality limit or to demonstrate that no technical or economical alternatives exist or that lowering water quality is necessary to accommodate important economic or social development.

401 KAR 5:031

This amendment updates water quality criteria to reflect scientific developments. Three (3) tables previously divided in this administrative regulation have been consolidated into one (1) table and placed in Section 6 of this administrative regulation. Dilution flows for non-carcinogenic substances in fish tissue and radionuclides were modified from 7Q₁₀ to harmonic mean flow in order to more accurately reflect the duration of exposure under which these human health criteria were developed.

Human Health Criteria

- Use of Bioaccumulation Factor instead of Bioconcentration Factor, which will consider all routes of exposure instead of just from water and fish.
- Result generally is lower criteria, much lower for carcinogens.

Other Criteria Revisions

- Bacteria - Addition of E. coli criteria in addition to the current fecal coliform criteria.
- Cadmium – new more stringent final recommended criterion from EPA April 2001

At 100 hardness	Current:	4.5 acute	2.4 chronic
	New:	2.1 acute	0.27 chronic

The commission deferred action on the regulations until its next meeting and after a review of the statement of consideration.

Water Quality - Wastewater

Mr. Pratt also reviewed amendments to 401 KAR 5:005. This is an amendment to reverse 401 KAR 5:005 to exempt:

1. Gravity sewers that

- Have a diameter of less than 8 inches and discharge directly to the sewer main
- Serve single-family residence buildings with 4 dwelling units or less or
- Serve a single office building or a single mercantile building with an occupant load of less than 30 persons

2. Force main sewers regardless of the location of the pump station that

- Have a length of less than 500 feet and discharge directly to a gravity sewer main
- Serve single-family residence buildings with 4 dwelling units or less or
- Serve a single office building or a single mercantile building with an occupant load of less than 30 persons.

The Commission deferred action on the regulation until its December meeting.

Other Business

EQC Executive Director, Leslie Cole handed out a draft copy of the Children's Environmental Health Trends Report. Ms. Cole also asked commissioners to review the comments received

from the U.S. EPA and others regarding the draft EQC recommendations on children's environmental health issues.

Ms. Cole reported that the EQC budget is in good shape and right on target with 33 percent of the fiscal year expended.

Leslie recognized EQC staff Erik Siegel and thanked him for his diligent work on the Content Management System (CMS) project through the Secretary's Office. The project required EQC to revamp its entire web site which took close to two months to accomplish. The new format will go on-line November 24 and EQC is ready.

Ms. Cole advised the Commissioners of Governor Patton's Executive Order creating the nature tourism Pine Mountain Partnership. Ms. Cole noted that this was an outcome of the tourism roundtable EQC conducted last year in Harlan County. She also noted that she helped to write the executive order along with Ewell Balltrip, Director of the Kentucky Appalachian Commission.

The next meeting of EQC is scheduled Dec. 18 at the Vest Lindsey House in Frankfort. This will be the annual EQC work meeting to set 2004 priorities. With no further business, the meeting adjourned at 4:30 p.m.

A handwritten signature in cursive script, reading "Aloma W. Dew". The signature is written in dark ink and is positioned above a horizontal line.

Signed Aloma Dew, Chair

Date